



STRATEGIES FOR TACKLING THE RISING SKILLS GAP: A MANUFACTURING CHALLENGE

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Strategies for tackling the rising skills gap

At a time of significant technological change, manufacturers are recognizing the need to develop new strategies to recruit employees and upskill their current workforce. Yet achieving these goals is particularly tough, as tepid perceptions of the sector often lead top talent to resist careers in manufacturing.

A new survey, conducted by The Economist Intelligence Unit (EIU) and sponsored by Prudential*, finds that more than one in three manufacturing executives see recruiting and retaining workers with the right skills as one of their greatest challenges. But manufacturing is evolving for a new industrial age and is forging new paths to secure talent in the process.

As an example, in a quest to lure young people to a career in welding, Cleveland-based Lincoln Electric developed a virtual reality tool that allows users at career fairs to test their skills. And while this cutting-edge tool helps identify both job candidates and future prospects, its mission extends well beyond finding basic technicians and teaching them entry-level welding skills.

Jason Scales, Lincoln Electric's business manager of education, notes that—in a changing industrial landscape experiencing rapid technological advances—the challenge is to find and retain sophisticated talent while also upskilling existing employees. “It's getting harder and harder to find people with more and better skills,” Mr. Scales says. “We need more critical thinking and analytical skills, as well as the ability to be more nimble. It's easy to train someone to complete a task, but do they really have the knowledge of the how and the why? We're focusing on the talents that will make us viable for the long term.”



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Jason Scales, business manager of education at Lincoln Electric

A problem of perception

As clear as the importance of landing talented recruits may be, manufacturers struggle with the perception that manufacturing is not a particularly desirable or even sustainable career field. Indeed, only 22% of millennials had a favorable view of manufacturing work, according to a 2015 study by The Manufacturing Institute and Deloitte. Moreover, manufacturing ranked seventh among industry preferences—behind such fields as technology, healthcare and financial services (the top three).¹ These findings are consistent with the EIU survey results, which show that 38% of manufacturers who now struggle to meet their talent needs anticipate a lack of candidates interested in manufacturing work over the next three years.

“This perception is a critical challenge for us,” says Carolyn Lee, executive director of The Manufacturing Institute, the research arm of the National Association of Manufacturers. “Manufacturing is not dirty and dangerous anymore. It's clean. And you can use your hands and make things. Changing the misperception of the sector, which is still a great and robust sector for jobs—that's a key for us.”

In fact, Ms. Lee notes, there are expected to be 3.5 million available manufacturing jobs by 2025, largely resulting from the retirement of some 2.7 million baby boomers. However, an estimated 2 million of these jobs are at risk of being unfilled. One central reason? A significant skills gap. Indeed, the study by The Manufacturing Institute and Deloitte found that 70% of current workers lacked adequate technology and computer skills. Among the executives already grappling with talent shortages in the EIU study, 42% expect to face difficulty in recruiting new employees who have the prerequisites for on-the-job training over the next three years.

Recognizing this challenge, manufacturers are pursuing the twin goals of aggressively recruiting new employees and upskilling (or reskilling) existing ones. The EIU survey confirms confidence in this approach: 70% of manufacturing executives agree that training opportunities will attract new talent, and 49% say that reskilling current workers is the most effective way to develop needed skills and competencies.



Creative approaches to talent

To build the necessary workforce, many companies are responding proactively by building partnerships and providing curriculum input to local high schools and community colleges. Others, like Lincoln Electric, are not only designing their own courses but also working with educators to expand their own knowledge and skills.

The Manufacturing Institute's efforts include designing a skills certification program of stackable credentials and working with manufacturers, community colleges and other institutions to create accessible courses and industry standards for the sector as a whole. The institute has also created thousands of "manufacturing ambassadors" nationwide who visit schools and host factory tours to educate young people about manufacturing careers.

With an eye toward the future, they are focusing on kids as young as fifth graders. Another goal is to increase the number of women in manufacturing—who account for only 29% of current employees, according to Ms. Lee. A key part of this approach is to expand perceptions of the range of jobs available. "The needs are very varied. Girls can be welders and production managers and plant managers," she says. "They can drive a forklift and be engineers and data scientists."

Landing talented women and other capable recruits has meant taking an active role in preparing them for available opportunities. This includes creating apprenticeship programs that closely link manufacturing companies with community colleges. Apprentices at Siemens, for example, which manufactures gas turbines in North Carolina, split their time between classrooms at Piedmont Community College and the company's shop floor. A high school diploma is no longer sufficient—Siemens turns away recruits who lack sufficient math and reading skills.

Manufacturers can also benefit from the experience of other industries. The communications giant AT&T is filling half of the company's tech jobs by upskilling existing employees; its current workers are receiving nearly half of its tech promotions. To make this succeed, AT&T has created a "talent blueprint" that analyzes gaps between current skills and needed emerging skills, with a focus on developing the internal workforce.



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Carolyn Lee, executive director of
The Manufacturing Institute

Changing the talent trajectory

Narrowing the skills gap will take a multipronged attack. It will require both developing the current talent pool and imagining how to enhance the quality and diversity of those in the future pipeline.

“It’s not one thread to change the trajectory,” says Ms. Lee, who adds that the goal is to have a “huge impact” on parents, teachers and students. “If you want to be involved in technology, you don’t just have to go to Silicon Valley. You can build skills and be involved in manufacturing.”

This is the kind of thinking that, with the advent of increasingly innovative advanced manufacturing, could shine a spotlight on manufacturing as an inspiring career choice. In the process, companies that have pursued creative approaches to reskilling and recruitment will be best positioned to reap the rewards.

Sources

¹ The Manufacturing Institute and Deloitte, “The skills gap in manufacturing: 2015 and beyond,” <http://www.themanufacturinginstitute.org/~media/827DBC76533942679A15EF7067A704CD.ashx>

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